

IN THE CLAIMS:

Please amend the claims as follows, in which deleted terms are indicated with strikethrough and/or double brackets, and added terms are indicated with underscoring. This listing of claims replaces all previous versions and listings of the claims in the application.

1. (Currently amended) A positioning jig device for a vehicle body frame, comprising:
a positioning jig for positioning and fixing the vehicle body frame;
a positioning robot for holding a first end of said positioning jig, supplying said positioning jig to a working position for said vehicle body frame, and positioning said vehicle body frame in a desired attitude; and
a positioning jig holder mechanism for holding a second end of said positioning jig, said positioning jig holder mechanism being disposed in said working position and having an engaging member which is detachably engageable with the second end of said positioning jig;
wherein said engaging member is swingable and extendable based on a position of the second end of the positioning jig corresponding to a desired attitude of said vehicle body frame set by said positioning robot, and said vehicle body frame is positioned and fixed by said positioning jig.

2-4. (Canceled)

5. (Previously Presented) The positioning jig device according to claim 1, wherein said positioning jig holder mechanism has a support by which said engaging member is swingably and retractably supported.

6- 7. (Canceled)

8. (Previously Presented) The positioning jig device according to claim 5, wherein said engaging member is supported by said support while being retractable with respect to the second end of said positioning jig through a resilient member in order to absorb shocks that are produced when the second end of said positioning jig engages with said engaging member.

9- 17. (Canceled)

18. (New) The positioning jig device according to claim 1, wherein said positioning jig comprises a securing unit for positioning and fixing said vehicle body frame relative to said positioning jig.

19. (New) The positioning jig device according to claim 1, wherein said positioning jig comprises a recess engageable by said engaging member of said positioning jig holder mechanism.

20. (New) The positioning jig device according to claim 1, wherein said positioning robot comprises a multi-axis robot for setting said vehicle body frame to the desired attitude while the second end of said positioning jig is engaging said engaging member of said positioning jig holder mechanism.

21. (New) The positioning jig device according to claim 1, including a welding robot disposed in said working position for welding said vehicle body frame which is positioned and fixed by said positioning jig.

22. (New) The positioning jig device according to claim 5, wherein said support supports said engaging member for rotation about an axis along which said engaging member is displaceable.

23. (New) The positioning jig device according to claim 5, wherein said support has an attitude securing member for securing the attitude of the support with respect to the second end of said positioning jig.

24. (New) The positioning jig device according to claim 5, wherein said engaging member is actuatable by an actuating mechanism for engagement with the second end of said positioning jig.

25. (New) A positioning jig device for a vehicle body frame, comprising:

- a positioning jig for positioning and fixing said vehicle body frame;

- a positioning robot for holding a first end of said positioning jig, supplying said positioning jig to a working position for said vehicle body frame, and positioning said vehicle body frame in a desired attitude; and

- a positioning jig holder mechanism for movably holding said positioning jig, said positioning jig holder mechanism being disposed in said working position and being operably connected to a second end of said positioning jig.

26. (New) The positioning jig device according to claim 25, wherein said positioning robot comprises a multi-axis robot for setting said vehicle frame to the desired attitude while the second end of said positioning jig is operably connected to said positioning jig holder mechanism.

27. (New) The positioning jig device according to claim 25, wherein said positioning jig holder mechanism comprises an engaging member which is detachably engageable with the second end of said positioning jig, and wherein the second end of said positioning jig comprises a recess engageable by said engaging member of said positioning jig holder mechanism.

28. (New) The positioning jig device according to claim 27, wherein said engaging member comprises two confronting sets of engaging arms, said engaging arms configured to move in a direction which is one of toward each other and away from each other upon actuation of said engaging member.

29. (New) The positioning jig device according to claim 27, wherein said positioning jig holder mechanism has a support by which said engaging member is swingably supported and which supports said engaging member for displacement toward the second end of said positioning jig.

30. (New) The positioning jig device according to claim 29, wherein said support has an attitude securing member for securing the attitude of said support with respect to the second end of said positioning jig.

31. (New) The positioning jig device according to claim 29, wherein said engaging member is supported by said support for displacement toward the second end of said positioning jig through a resilient member in order to absorb shocks that are produced when the second end of said positioning jig engages with said engaging member.

32. (New) The positioning jig device according to claim 19, wherein said engaging member of said positioning jig holder mechanism comprises a plurality of teeth that fit into said recess for securely holding said positioning jig.

33. (New) The positioning jig device according to claim 1, wherein said positioning robot comprises a base and a first arm, a second arm, a third arm, a fourth arm, and a fifth arm, each of said arms being pivotally mountable to another and each having a specific axis of rotation, and wherein the first arm is mounted on said base.

34. (New) The positioning jig device according to claim 33, wherein said positioning jig mechanism includes a support arm, pivotally mountable at an end of said support arm to at least one support post, and wherein said engaging member of said positioning jig mechanism is disposed at an opposite end of said support arm.

35. (New) The positioning jig device according to claim 35, wherein, said support arm, said positioning jig, said fifth arm, and said fourth arm rotate along a same axis when said engaging member engages with said positioning jig.